

June 8, 2017

Mr. Dan Opalski, Director
Water Division, Office of Water and Watersheds
U.S. EPA Region 10
Attention: Chris Zell
1200 Sixth Avenue
Seattle, WA 98101

Dear Mr. Opalski:

In accordance with 40 CFR 130.7 and Section 303(d)(1) of the Clean Water Act (CWA), the Washington State Department of Ecology submits the *Deschutes River, Percival Creek, and Budd Inlet Tributaries Multi-Parameter Total Maximum Daily Load (TMDL) Water Quality Improvement Report* for your review and approval. This TMDL addresses and establishes load allocations for temperature, fecal coliform bacteria, and fine sediment for your approval. The document also addresses dissolved oxygen, pH, and additional temperature impairments in the watershed.

The Deschutes River, Percival Creek, and Budd Inlet Tributaries Multi-parameter TMDL addresses 17 impaired segments on the 2014 Water Quality Assessment (303(d) list). The total number of TMDLs within this submission according to the 1996 counting convention is 12. In addition to these listed segments, there were ## water body segments found not meeting water quality standards. We ask that the load allocations applied to these water bodies also be approved. The table in the enclosure clarifies and counts the water body segments addressed within this TMDL by showing their names and identification numbers.

The Water Quality Improvement Report with Implementation Plan includes all the requirements and other information necessary to determine the statutory and regulatory adequacy of this TMDL. In addition, the public participation during the development of the TMDL is captured along with a responsiveness summary in Appendix F. You will find the report at:
<https://fortress.wa.gov/ecy/publications/SummaryPages/1510012.html>.

The TMDL includes allocations and an implementation plan for additional parameters and additional waterbodies than the XX impaired segments for which this letter seeks approval. The Department of Ecology will fully implement these allocations and proceed with all aspects of the implementation plan within the entire Deschutes River and Budd Inlet Tributaries watershed. Meeting the allocations and completing the implementation plan are required to return the Deschutes River to a healthy state and protect aquatic life and recreational uses. The most critical implementation actions are to establish forested stream-side vegetation corridors and conserve existing stream-side vegetation corridors on the Deschutes River and other streams. Establishing these stream-side vegetation corridors is required to make significant progress on problems related to temperature, fecal coliform bacteria, dissolved oxygen, pH, and fine sediment. This will take a concerted effort on behalf of land owners, non-profit organizations, and governments in the watershed.

The Department of Ecology augments the TMDL by adding the following two wasteload allocation clarifications for temperature for all permitted stormwater sources within the TMDL boundary.

1. All discharges shall not cause more than a 0.3°C increase in the 7-day average of the daily maximum (7-DADMax) stream temperature due to the combined effects of all human activities. That allowable 0.3°C increase is quantified using the following equation, which provides a numeric daily loading value to assess compliance with the allocation.

$$T_{eff} = T + 0.3 * \frac{Q + Q_{eff}}{Q_{eff}}$$

Where:

T = Background temperature

Q = Stream flow before discharge

Q_{eff} = Stormwater discharge flow

T_{eff} = Temperature of allowable stormwater discharge

2. All discharges from stormwater systems shall not exceed the numeric water quality standard found in WAC 173-201A of 17.5°C for the 7-DADMax.

The Department of Ecology augments the TMDL by adding the following wasteload allocation clarification for bacteria for all permitted point sources within the TMDL boundary.

Insert Chris's bacteria stuff here

The Department of Ecology is currently preparing a dissolved oxygen TMDL for Budd Inlet. The Budd Inlet TMDL will set a load allocations for all sources of nutrient pollution to the Inlet, including the Deschutes River and other tributaries to the Inlet. More information on the Budd Inlet Dissolved Oxygen TMDL is available on our website at <http://www.ecy.wa.gov/programs/wq/tmdl/deschutes/BudiInletCapitolLkTMDL.html>. We will continue to work directly with EPA staff on the development of this TMDL. According to our current schedule, we plan to send a draft TMDL to EPA for your full review by 20XX and send a completed TMDL for your approval by 20YY. Implementation of the Budd Inlet and Deschutes River TMDLs may resolve the current impairments in Capitol Lake. If they do not, Ecology will also complete a TMDL for Capitol Lake.

I believe that the complete work outlined in the report meets the objectives of the CWA and will result in achieving water quality standards for temperature, fecal coliform bacteria, dissolved oxygen, pH, and fine sediment in the Deschutes River, Percival Creek, and Budd Inlet Tributaries. Your review and approval are greatly appreciated.

Listing ID	Water Quality Assessment						Waterbody	Parameter	Reach Code	Count		
	2014	2012	2008	2004	1998	1996				2014	1996	
45462	5	5	5	3	N	N	ADAMS CREEK	Bacteria	17110019007395	1	1	
45695	5	5	5	3	N	N	ADAMS CREEK	Bacteria	17110019007396	1		
16722	5	1	1	5	Y	Y	DESCHUTES RIVER	Bacteria	17110016000007	1	1	
45480	5	5	5	3	N	N	ELLIS CREEK	Bacteria	17110019007661	1	1	
45731	5	2	2	3	N	N	ELLIS CREEK, N.F.	Bacteria	17110019007581	1	1	
3758	5	5	5	5	Y	Y	INDIAN CREEK	Bacteria	17110019020859	1	1	
74218	5	3	3	3	N	N	INDIAN CREEK	Bacteria	17110019000800	1		
45212	5	5	5	3	N	N	MISSION CREEK	Bacteria	17110019020856	1	1	
3759	5	5	5	5	Y	N	MOXLIE CREEK	Bacteria	17110019007890	1	1	
3761	5	5	5	5	Y	N	MOXLIE CREEK	Bacteria	17110019007948	1		
3763	5	5	5	5	Y	Y	REICHEL CREEK	Bacteria	17110016000057	1	1	
45559	5	5	5	3	N	N	SCHNEIDER CREEK	Bacteria	17110019007705	1	1	
46061	5	5	5	3	N	N	SPURGEON CREEK	Bacteria	17110016000044	1	1	
6232	5	5	5	5	Y	N	DESCHUTES RIVER	Fine Sediment	17110016000014	1	1	
6576	5	5	5	5	Y	Y	DESCHUTES RIVER	Temperature	17110016000007	1	1	
48711	5	5	5	3	N	N	DESCHUTES RIVER	Temperature	17110016000008	1		
48713	5	5	5	3	N	N	DESCHUTES RIVER	Temperature	17110016000009	1		
74253	2	3	3	3	N	N	BUTLER CREEK	Bacteria	17110019013133			
45749	2	2	2	3	N	N	BUTLER CREEK, NW.F.	Bacteria	17110019007449			
45343	2	2	2	3	N	N	BUTLER CREEK, SE.F.	Bacteria	17110019013134			
45342	2	5	5	3	N	N	BUTLER CREEK, SW.F.	Bacteria	17110019007492			
74210	2	3	3	3	N	N	DESCHUTES RIVER	Bacteria	17110016000012			
46415	2	2	2	3	N	N	PERCIVAL CREEK	Bacteria	17110016007733			
											17	12